

Tennessee Pollution Prevention Partnership Success Story



DENSO Manufacturing Tennessee, Inc.
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Partner Reduces NOx Emissions from Transportation

The Member

DENSO Manufacturing Tennessee, Inc., is part of DENSO Corporation's global network of 74 subsidiaries in 29 nations and the fourth largest producer of advanced technology, components and systems for all major automakers. The DENSO Tennessee facilities employ more than 2,900 associates at two locations, Maryville and Athens.

The Story – Transportation

The fifteen DENSO Group Companies in North America work with over 780 customers and suppliers. Thousands of shipments occur each year between the DENSO Group Companies and their suppliers and customers. Multiple carrier companies were used for shipments of less than truck load (LTL) quantities of materials. LTL shipments contributed to increased freight damage, reduced control of delivery performance, reduced usage of returnable packaging and increased motor vehicle miles traveled.

NOx emissions from motor vehicles are a large contributor to the formation of ozone. Ozone is formed from chemical reactions between nitrogen oxides (NOx) and volatile organic compounds (VOCs).

New Idea – Integrate North American Transportation

DENSO initiated the North American Integrated Logistics (NAIL) Project to coordinate and consolidate shipments within North America. The DENSO Tennessee-based NAIL Project Team identified the geographic locations of the supply base, the common modes of transportation and the freight volumes. This information was used to develop an optimized delivery system with over 60 consolidated shipment routes between the 15 DENSO group companies and over 200 suppliers.

The Success

The NAIL Project has reduced the number of LTL shipments and improved delivery performance and quality. The consolidated routes have also made the use of returnable packaging economically and logistically practical.

The NAIL Project has reduced the vehicle miles traveled due to DENSO related shipments from 255,486 miles/week to 70,054 miles/week for a total savings of 9,271,600 miles/year.

The Pollution Prevented

This project prevented approximately 66 tons of NOX emissions per year from vehicle miles traveled.